

CLAIMS

What is claimed is:

1. A method for analyzing the operation of a media delivery
5 device, the method comprising the steps of:
determining whether a network connection is functional;
determining whether a first diagnostic agent is functional, in
response to a determination that the network connection is functional;
causing the first diagnostic agent to collect diagnostic data
10 associated with the media delivery device, in response to a determination
that the first diagnostic agent is functional; and
analyzing the diagnostic data to determine an operational
problem associated with the media delivery device.
- 15 2. The method of Claim 1 further comprising the step of
uploading the first diagnostic agent to the media delivery device over an
alternative network connection, in response to a determination that the
network connection is not functional.
- 20 3. The method of Claim 1 further comprising the step of
uploading a second diagnostic agent to the media delivery device, in
response to a determination that the first diagnostic agent is not functional.
- 25 4. The method of Claim 1 further comprising the step of
remedying the operational problem.

6. A diagnostic tool for remotely analyzing and diagnosing the performance of a media distribution device, comprising:

a data adapter operative to maintain a communication link between the media distribution device and a media delivery service provider;

5 an intelligent diagnostic agent residing in the media distribution device and operative to collect diagnostic data associated with the media distribution device; and

a diagnostic service center operative to communicate with the intelligent diagnostic agent over the communication link to retrieve the
10 diagnostic data and to determine an performance problem associated with the media delivery device.

7. The diagnostic tool of Claim 6, wherein the performance problem is also associated with a second device functionally connected to
15 the media distribution device.

8. The diagnostic tool of Claim 6, wherein the media distribution device is a set-top box.

20 9. The diagnostic tool of Claim 6, wherein the intelligent diagnostic agent is a program module residing in a system memory of the media distribution device.

10 25 10. The diagnostic tool of Claim 9, wherein the intelligent diagnostic agent is executable in the system memory.

11. The diagnostic tool of Claim 6, wherein the diagnostic service center can upload the diagnostic agent to the media distribution device.

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12. The diagnostic tool of Claim 11, wherein the diagnostic service center can determine whether the diagnostic agent is functional.

10 13. The diagnostic tool of Claim 11, wherein the diagnostic service center can replace the diagnostic agent with a substitute diagnostic agent, in response to a determination that the diagnostic agent is not functional.

15 14. The diagnostic tool of Claim 6, wherein the communication link is broadband connection.

15. The diagnostic tool of Claim 14, wherein the communication link is an asymmetric digital subscriber line.

20 16. The diagnostic tool of Claim 6, wherein the communication link is a satellite connection.

17. The diagnostic tool of Claim 6, wherein the diagnostic service center is further operative to remedy the performance problem.

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18. The diagnostic tool of Claim 17, wherein the diagnostic service center is further operative to remedy the performance problem by uploading a replacement program module to a system memory of the media distribution device.

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19. The diagnostic tool of Claim 17, wherein the diagnostic service center is further operative to remedy the performance problem by establishing a secondary communication link between the media distribution device and the media delivery service provider.

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20. A self-diagnosing media distribution system, comprising:
- a media delivery service provider operative to transmit a media content stream to a media distribution device;
 - a diagnostic service center for communicating with the media distribution device to retrieve diagnostic data from the media distribution device and to send remedial data to the media distribution device; and
 - an intelligent diagnostic agent residing in the media distribution device and operative to collect diagnostic data associated with the media distribution device and to transmit the diagnostic data to the diagnostic service center;
- whereby a performance problem associated with the media delivery device can be remotely remedied.